REMARKS

Status of case

Claims 2, 6-8, and 10-27 are currently pending in this case. New independent claims 11-13 have been added. Also, two sets of new claims, claims 14-27, have been added, in which claims 14 and 21 are independent claims.

Rejection under 35 U.S.C. § 101

Claim 10 was rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Applicant amends claim 10 where it is believed appropriate.

Rejection under 35 U.S.C. § 102

Claims 2, 6, 7, 8, and 10 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,107,345 of Lee. Applicant respectfully submits that the inventions recited in claims 2, 6, 7, 8, and 10 as amended above and newly added claims 11-27 should be allowable over Lee.

A decoding apparatus is shown in Fig. 6 of Lee. In Lee, a receiver receives coded coefficient data from a sender. The received coefficient data is then supplied to a separator 102, in which a BSA code is separated from the data. The BSA code includes block side assignment data which shows how the coefficient data is partitioned. (col. 10, lines 37-64). Please note that in Lee, the receiver receives a single block of coefficient data, not multiple blocks of coefficient data. (col. 14, lines 35-38). The block size of Lee is always constant and equal to 16x16. However, in order to optimize compression of the block, the block is adaptively partitioned such as shown in Fig. 4a. The zig-zag scanning is then performed on each of the partitioned elements of the block. Please note that although each partitioned element is independently scanned such as shown in Fig. 5a-5b, the ensuing scanned data is in a single string. This single block of coefficient data then undergoes decompression at a decompressor 108 (col. 15, lines 7-19) and inverse zig-zag scanning at a serializer 112. (col. 15, lines 19-25). The single block of coefficient data is thereafter dequantized at inverse quantizers 114a-114d. (col. 15, lines 25-32).

It should be a remarkable feature of Lee that throughout the decompressing, inverse scanning and dequantizing processes, the coefficient data is kept in a single block form and treated as such.

The dequantized coefficient data is inversely transformed at inverse transformers 116a-116d. Each of the inverse transformers 116a-116d selectively inversely transforms a partitioned element of the size adapted thereto within the block. (col. 15, lines 33-46). A combiner 118 combines inversely transformed coefficients of different element sizes back into one block of coefficient data. Therefore, it may be arguably said that in Lee, only in the process of inverse transforming, the partitioned elements are treated separately. Thus, except during the process of inverse transforming, the coefficient data is maintained in one block form throughout the decoding process.

Claims 2, 6 and 10

The inventions recited in claims 2, 6 and 10 are clearly distinguishable from Lee. First of all, the limitation of claims 2, 6 and 10 is missing in Lee which calls "a coefficient string constructing step of, when a block of a size larger than the minimum size is selected in the block selecting step, constructing a coefficient string of the block of the larger size from a plurality of coefficient strings decoded in the decoding step." No element of the decoding apparatus shown in Fig. 6 of Lee performs such a step.

In Lee, it is arguably said that the combiner 118 may be considered reconstructing a coefficient string. However, the combiner 118 of Lee does not have any intelligence for distinguishing the sizes of partitioned elements and just combines the partitioned elements, with complete disregard to their sizes.

Further, claims 2, 6 and 10 call for the inverse orthogonal transforming process to be performed after the coefficient string is constructed. In Lee, the inverse orthogonal transforming process is performed before the partitioned elements are combined by the combiner 118.

There is nothing in Lee that discloses or teaches the inventions recited in claims 2, 6 and 10. Therefore, claims 2, 6 and 10 should be allowable over Lee. Since claim 6 should be allowable, so should claims 7 and 8, which are dependent claims of claim 6.

Claims 11-13

New claims 11-13 have been added in the above amendment. The same reasons as discussed above are applicable in distinguishing the inventions recited in claims 11-13 from Lee.

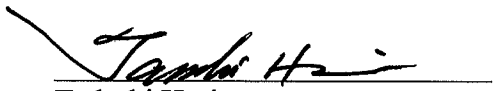
Claims 14-27

New claims 14-27 have been added in the above amendment in which claims 14 and 21 are independent claims and the other claims depend directly or indirectly from either of claims 14 and 21. Among other things, Lee is silent about the limitation of claims 14 and 21 that the transform coefficients of a respective decoded block are interleaved with the transform coefficients of another decoded block. In the inventions recited in claims 14 and 21, coefficients of multiple blocks are interleaved. In Lee, the combiner 118 combines partitioned elements and never interleaves coefficients in the partitioned elements. Thus, there is nothing in Lee that discloses or teaches the inventions recited in claim 14 and 21. Therefore, claims 14 and 21 should be allowable over Lee. Since claims 14 and 21 should be allowable, so should their dependent claims.

SUMMARY

Applicant respectfully requests the Examiner grant early allowance of this application. The Examiner is invited to contact the undersigned attorneys for the Applicant via telephone if such communication would expedite this application.

Respectfully submitted,



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